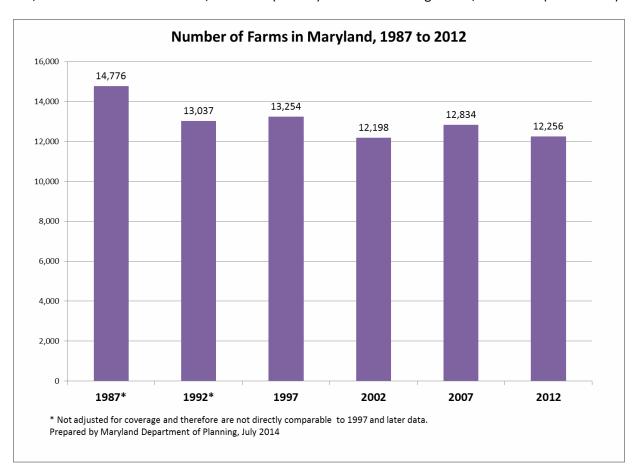
# The 2012 Census of Agriculture: Data for Maryland

### Introduction

The number of farms and the amount of farmland in Maryland decreased between 2007 and 2012, according to the 2012 Census of Agriculture released by the USDA. The state lost 578 farms and 21,011 acres of farmland over this five-year period. However, this was the smallest loss of farmland since 1987, representing only 1.0 percent of all existing farmland in 2007.

#### **Number of Farms**

Maryland had 12,256 farms in 2012, a decrease of 578 farms (4.5%) since the last Census of Agriculture in 2007, and an overall decrease of 2,520 farms (-17.1%) since the 1987 high of 14,776 farms (See Table 1).



Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

<sup>&</sup>lt;sup>1</sup> Figures reported for 1997 and later reflect coverage adjustments to ensure a more accurate report of agriculture in the U.S. The 1997 data in this report reflects these adjustments and differs from those originally reported as part of the 1997 Census of Agriculture. In 1997, the Census published both unadjusted and adjusted coverage data to assist researchers in calculating the effects of adjusted coverage on the data.

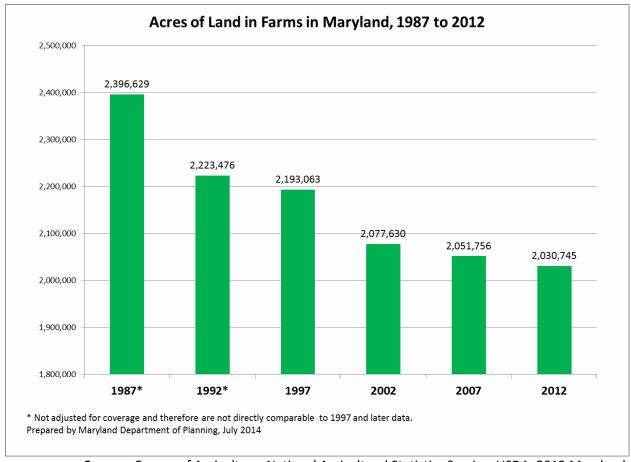


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Per capita, Maryland had fewer farms than most other states. Maryland contained 2.1 farms per 1,000 persons in 2012, ranking it 42<sup>nd</sup> out of the 50 states. North Dakota had the largest number of farms per capita (44.1 farms per 1,000 persons), while New Jersey and Alaska had the least (1.0 farms per 1,000 persons). Overall, the U.S. had 6.7 farms per 1,000 persons in 2012.

#### Land in Farms and Farm Size

Maryland contained 2,030,745 acres in its 12,256 farms in 2012, according to the Census of Agriculture, making the average farm size 166 acres. As the state contains 6.25 million acres of land<sup>2</sup>, this means that 32.5 percent of Maryland's land area was in farms in 2012. This ranks Maryland 26<sup>th</sup> out of the 50 states in land area used for farming, with Nebraska ranked first (with 92.1% of all land area used for farming) and Alaska ranked last (with 0.2%)(See **Table 3**).



Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012 Maryland

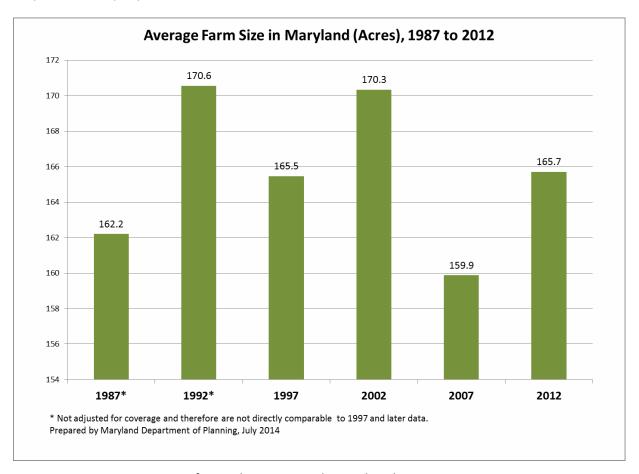
lost the least amount of farmland from 2007 to 2012 (-21,011 acres, or -1.0%), compared to all the previous censuses since 1987. Maryland has lost a total of 365,884 acres (-15.3% of the 1987 total) from

<sup>&</sup>lt;sup>2</sup> "Land area" is considered to be dry land or land temporarily or partially covered by water, such as marshland, swamps, etc.; streams and canals under one-eighth statute mile wide; and lakes, reservoirs, and ponds under 40 acres. This definition excludes permanent inland water bodies having an area of 40 acres or more; streams, and canals one-eighth statute mile or more in width; and coastal waters behind or sheltered by headlands or islands separated by less than 1 nautical mile of water, and islands under 40 acres in area. Maryland contains approximately 1.69 million acres of inland water according to the U.S. Bureau of the Census.



1987. While the Census of Agriculture does not record the land use of land that has ceased to be used for agriculture, the USDA estimates that the total number of acres of urban land in Maryland increased from 906,000 acres to 1,189,000 acres from 1982 to 2007 (an increase of 283,000 acres), implying that the majority of lost agricultural land is shifted into urban uses.<sup>3</sup>

Farmland loss has slowed significantly in recent years in Maryland. Since 1987, Maryland had its largest loss of agricultural land between the 1987 and 1992 censuses, when 173,153 acres of farmland (-7.2% of the 1987 base) changed to some other use. Maryland was still losing significant amounts of farmland up until ten years ago, when it lost 115 thousand acres of farmland between the 1997 and 2002 censuses (5.3% of the 1997 base). The current intercensal loss of farmland is the lowest since 1987, and averages to only 4,202 acres per year.



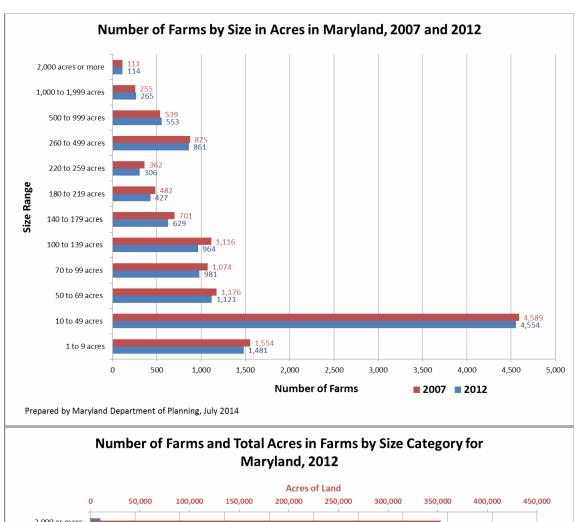
Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012

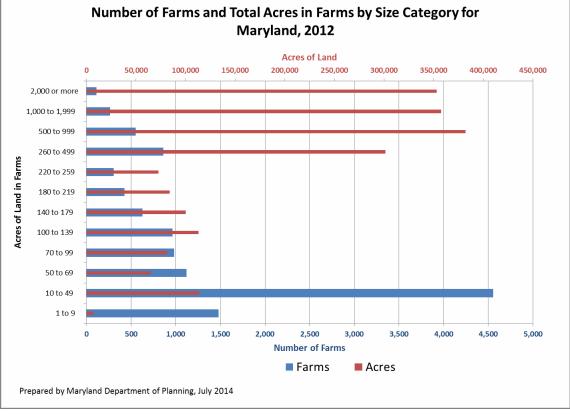
Average farm sizes in Maryland have remained between 159.9 and 170.6 acres since 1987, and were 165.7 acres in 2012, a much lower average size than the national average of 434 acres. Maryland ranked 42<sup>nd</sup> in average farm size in 2012, with Wyoming ranked first (2,587 acres per farm) and Rhode Island ranked last (56 acres per farm) (See **Table 3**).

http://www.ers.usda.gov/data-products/major-land-uses.aspx#25984



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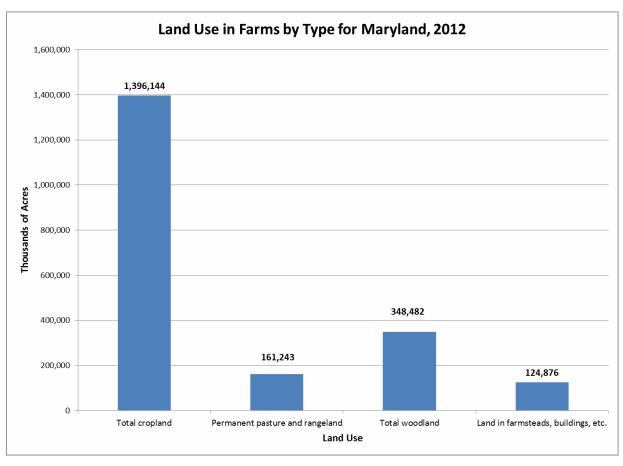
Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012



While the average farm in Maryland is small, there are large farms in the state. The Census of Agriculture counted 114 farms of 2,000 acres or higher, their largest farm size category, in 2012, an increase of 3 farms (2.7 percent) over 2007. The number of farms sized 1,000 to 1,999 acres decreased slightly in that time period from 276 to 265 (by 11 farms, or 4.0%). These changes contrast with a substantial decrease of farms sized 180 to 499 acres (428 farms, 21.2%) and of farms sized 50 to 179 acres (426 farms, 10.3%) over that same time period. It is important to note that, while there are only 1,793 farms with 260 acres or more in Maryland (14.6 % of all farms), they contain 68.6 percent (1.39 million acres) of all of Maryland's farmland.

#### **Land Use in Farms**

Not all land in farms is used for crop or livestock production. Some is held in reserve or laid fallow to allow them to recover after use, some are in conservation status, and some are wooded and not used for crops or livestock grazing. Land in farms is separated into four basic categories: cropland, used for raising crops; pasture, used for grazing livestock; woodland, used for harvesting tree products; and buildings and other uses, which includes roads, structures, ponds, and wasteland.



Source: Census of Agriculture, National Agricultural Statistics Service, USDA, 2012



Cropland,<sup>4</sup> or land used to grow crops, was the largest category of land use on Maryland farms in 2012, covering 1.39 million acres (68.8%) of all land in farms. The second largest land use was woodlands,<sup>5</sup> covering 348,482 acres (17.2%) of farmland. The smallest categories of land use were permanent pasture and rangeland<sup>6</sup> (161,243 acres, 7.9%) and land in farmsteads, building, or other uses<sup>7</sup> (124,876 acres, 6.1%). Frederick County had both the highest number of farms (1,308) and the largest amount of farmland (181,512 acres). Queen Anne's County had the largest percentage of farmland in cropland (82.8%), Allegany County had the highest percent of land in permanent pasture and range land (21.5%) and Woodland (41.3%), while Howard County had the highest percentage in buildings and other uses (14.7%) (See Table 5).

Not all land classified as "cropland" is used to grow crops at all times. Some is used for pastureland (in addition to lands kept in permanent pasture status), and some is in "other uses" such as being "idle or used for cover crops or soil improvement, but not harvested and not pastured," "cropland on which all crops failed," and "cropland in cultivated summer fallow." In Maryland in 2012, the vast majority (91.8%) of cropland was harvested cropland used to grow crops, while 1.1 percent (15,176 acres) was used only for pastureland, and 7.1 percent (100,003 acres) for other cropland uses. Baltimore County had the largest percentage of cropland in active production (95.1%), while Prince George's and Charles Counties had the lowest (86.4%) (See Table 6).

A large percentage of land in farms is considered "woodland," which is defined by the USDA as "natural or planted woodlots or timber tracts, cutover and deforested land with young growth which has or will have value for wood products" and woodland pastured. Woodlands do include "land in tapped maple trees" but do not include "land planted for Christmas tree production and short rotation woody crops", which was reported as cropland. (See **Table 6**). The vast majority of woodlands in Maryland are not pastured (92.9%), though this ranges from an estimated low of 75.0 percent in Washington to a high of 99.6 percent in Kent County. Overall, Garret County has the largest number of acres in woodland use (30,896, or 8.9

<sup>&</sup>lt;sup>10</sup> 2012 Census of Agriculture, United States Summary and State Data, Volume 1, Geographic Area Series, Part 51, pp B-25 – B-26.



<sup>&</sup>lt;sup>4</sup> Total cropland includes five components: cropland harvested, crop failure, cultivated summer fallow, cropland used only for pasture, and idle cropland. Three of the cropland acreage components—cropland harvested, crop failure, and cultivated summer fallow—are collectively termed cropland used for crops, or the land input to crop production.

<sup>&</sup>lt;sup>5</sup> Woodland includes land at least 10 percent of which is stocked by trees of any size, or land formerly having had such tree cover that will be naturally or artificially regenerated. Large acreages of woodland held for nonagricultural purposes were deleted during the edit process.

<sup>&</sup>lt;sup>6</sup> Permanent pasture and rangeland consists of all open land used primarily for pasture and grazing of livestock.

<sup>&</sup>lt;sup>7</sup> This category includes land in house lots, barn lots, ponds, roads, ditches, wasteland, etc. It includes those acres in the farm operation not classified as cropland, pastureland, or woodland. Large acreages of wasteland held for nonagricultural purposes were deleted during the edit process.

<sup>&</sup>lt;sup>8</sup> Idle cropland includes land in cover and soil improvement crops and completely idle cropland. Some cropland is idle each year for various physical and economic reasons. Acreage diverted from crops to soil-conserving uses under Federal farm programs is included in this component. Cropland enrolled in the Federal Conservation Reserve Program (CRP) is included in idle cropland. (http://www.ers.usda.gov/Data/MajorLandUses/glossary.htm)

<sup>&</sup>lt;sup>9</sup> Cultivated summer fallow refers to cropland cultivated for a season or more to control weeds and accumulate moisture before small grains are planted. Other types of fallow are not included in cultivated summer fallow. (http://www.ers.usda.gov/Data/MajorLandUses/glossary.htm)

percent of all woodland on farmland in Maryland) while Montgomery County has the least (6,111 acres, or 1.8 percent).

Pastureland was a more complex land use to tally, as some land is in "permanent" pasture or rangeland status, meaning that farm operators do not use it for other purposes, while other pastureland is also counted as cropland or woodland. Croplands or woodlands also used for pastureland could conceivably be used at another time for other uses, (See Table 6). When counting all types of pastureland, Maryland contained 201,249 acres, or 10.3 percent of all farmland. Frederick County had the most pastureland of all types (29,219 acres, or 14.5% of all pastureland), while Dorchester County had the least (1,033 acres, or 0.5%).

# Value of Land and Buildings in Farms

The monetary value (in constant 2012 dollars) of farms has declined since 2007 in most parts of Maryland, decreasing by 6.5 percent (\$80,026 per farm) by 2012 (See **Table 7** and **Table 8**). This is a significant change from past Censuses where average value of land and buildings increased, and is a pattern seen across all regions of the State, except the Upper Eastern Shore Region. Farms in the Upper and Lower Eastern Shore regions have consistently been the most expensive in Maryland, though this is partly due to the more capital-intensive farming operations that they run (poultry farms). Kent County has the highest average farm value at \$2,472,676, followed by Talbot County \$2,408,599, while farm values are the least in Allegany County with \$435,282 average.

The average value (in constant 2012 dollars) of an acre of farmland (including improvements) also decreased since 2007 (See **Table 9** and **Table 10**). Statewide, the average value decreased 9.8 percent, from \$7.683 to \$6,930 per acre<sup>11</sup>. Only four counties in Maryland saw an increase in average value per acre, Worcester County had the highest increase (\$1,157 or 24.0%) over that five-year period, Howard County had the largest decline in value from \$14,431 to \$10,961 an average decline of \$3,470 or 24.0 percent. While farmland in the Lower Eastern Shore region increased (4.0%) in average value, Western Maryland had the biggest decline at 28.8 percent among all the regions.

# **About the Census of Agriculture**

The Census of Agriculture is conducted every five years by the National Agricultural Statistics Service (NASS), a branch of the United States Department of Agriculture (USDA). NASS has conducted the Census since 1997. Previously, the Census was conducted by the U.S. Bureau of the Census. In one form or another, there has been an agricultural census conducted periodically in the U.S. since 1840.

According to NASS, the Census of Agriculture "is a complete count of U.S. farms and ranches and the people who operate them. The Census looks at land use and ownership, operator characteristics, production practices, income and expenditures and many other areas." Data is published for the nation, states, certain territories, and all U.S. counties.

http://www.agcensus.usda.gov/Help/FAQs/General FAQs/



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<sup>&</sup>lt;sup>11</sup> However, compared to the value of an acre in 1987 (\$4,890) in constant dollars, the average value of farms in Maryland increased by 41.7 percent from 1987 to 2012.

#### **Farm Definitions**

The USDA defines a farm as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the relevant census year. This definition has changed nine times since 1840. From 1959 to 1974, the definition included both farm size and sales volume, with two different sales volume thresholds based on two farm size classifications (farms of 10 acres or more and farms of less than 10 acres). The current definition was adopted after 1974 and has no farm size requirement. Inflation has changed the definition over time, as the table below shows.

	Current Dollars			Constant Dollars (\$2012) *		
Year	10	Less than	All Acres	10	Less than	All Acres
	Acres+	10 Acres		Acres+	10 Acres	
2012			\$1,000			\$1,000
2007			\$1,000			\$1,092
2002			\$1,000			\$1,235
1997			\$1,000			\$1,337
1992			\$1,000			\$1,484
1987			\$1,000			\$1,778
1982			\$1,000			\$2,098
1978			\$1,000			\$2,907
1974	\$50	\$250		\$189	\$947	
1969	\$50	\$250		\$249	\$1,243	
1964	\$50	\$250		\$288	\$1,440	
1959	\$50	\$250		\$307	\$1,536	

<sup>\*</sup> Dollar values adjusted using the Personal Consumption Expenditure (PCE) index from the Bureau of Economic Analysis' National Income and Products Accounts System (NIPA)

\*\*Source: 2012 Census of Agriculture: History, Appendix B

## **About Coverage Adjustment in the 1997 and later Censuses**

In 1997 NASS changed how data was collected for the Census of Agriculture to ensure that farms were properly counted, a process known as *coverage adjustment*. These changes relate to how farm operations that did not show up on the USDA's official list of farms and ranches were treated. NASS used this list as the initial Census Mailing List (CML) and sent census forms to all addresses on the list. To ensure that the list was complete, NASS used a sampling scheme where selected aerial photography from the June Agricultural Survey (JAS) was used to sample segments of land to search for farmland. These sample segments were then "personally enumerated" to find every operating farm in each land segment. This process was supplemented with the Agricultural Coverage Evaluation Survey (ACES), another sampling scheme that was designed to "provide measures of small and minority owned farms."<sup>14</sup>

The farms found in these processes were compared to the farms on the CML, and farms that were missing from the CML were placed on a separate list, called the "Not on the Mail List" or NML. Farms on the NML were sent a different form than the CML so that those forms could be identified when they were returned.

<sup>&</sup>lt;sup>14</sup> A-4 Appendix A



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http://www.agcensus.usda.gov/Publications/2012/Full\_Report/Volume\_1,\_Chapter\_1\_US/usv1.pdf

Since the CML farms were intended to be the entire population of farms while the NML farms were a sample of all missing farms, the total undercoverage of farms was estimated on the state level, and weighted estimates were generated for the county level. These estimates also include estimates that adjust the data for errors caused by non-responsive farms.

